Chapter 94

General Approach to the Management of Cluster Headaches

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Cluster headache (CH) is one of the most severe pain conditions known to mankind. The suffering of the patient is enormous, which places special demands on the treating physician as regards his or her empathy and understanding of the patient's whole situation. The individual attacks are relatively brief but are usually of such high intensity that treatment of symptoms may fail to have the desired effect (1). Many patients have a high consumption of analgesics, which implies certain risks in the case of lengthy periods of headache. Information to the patient on the nature of CH is important, among others, to optimize compliance to different treatment regimes. Alcohol can bring on extra attacks and should not be consumed during active periods of CH. Afternoon naps should also be avoided. It is important to relieve the patient's fear and anxiety of the attacks and to inform that CH, although severe, is self-limiting and does not give rise to structural complications.

As with migraine, medical treatment can be divided into:

1. Acute symptomatic treatment of individual attacks
2. Prophylactic treatment

The spontaneous course of CH may cause some problems when evaluating effects of treatment. It may, for example, be somewhat difficult to decide whether an observed improvement is due to effects of drugs or to a spontaneous remission. Patients should be encouraged to keep a headache diary, and it is necessary to reevaluate the treatment of the patients on every visit. Dosage of the drugs used and the administration mode should be individualized and adapted to the rhythm of the attacks. When choosing pharmacologic treatment, attention should be paid to the patient's age, state of health, the type of disease (episodic or chronic CH), the frequency and duration of the attacks, their time of occurrence, and the expected length of the remaining CH period. Because the pattern of attacks varies considerably from one patient to another, an effective prophylaxis may be difficult to achieve, especially in the case of frequent, severe attacks or extended periods of headache.

Attacks of CH are very rapid in onset and peak in less than 5 to 10 minutes. Oral medications are, in general, to slow to work and therefore not appropriate for treatment of acute attacks. Patients want simple self-administered drugs with high efficacy and a safe, rapid, and consistent action. In most CH patients, sumatriptan 6 mg subcutaneously is the pharmacologic agent of first choice in the treatment of acute attacks (2). Sumatriptan is given as a sole acute medication or added to prophylactic management. It is well tolerated and there is no evidence of any tachyphylaxis on long-term treatment. It should be remembered that sumatriptan is an expensive drug. If injectable sumatriptan is not tolerated, a rapid-acting triptan nasal spray may be useful as an alternative therapy (4,8,9,11).

Oxygen 100% inhalation is commonly used as a standard abortive treatment of CH (7), not only at the emergency clinic but also at the patient's home or office. Patients can rent a tank and regulator from suppliers. Oxygen inhalation causes no side effects, and unlike triptans or ergotamine, it is not contraindicated by cardiovascular, peripheral vascular, pulmonary, hepatic, or renal diseases.

Other treatments than triptans may be considered (a) in patients with more than two attacks per day; (b) in patients with intolerable side effects or any contraindications to triptans; and (c) in patients with very extended periods or a chronic syndrome. It can be recommended that very young or very old sufferers get an individually based acute treatment. There is at present only limited experience in the handling of the latter age groups. Pregnant and nursing women suffering from a period of CH must be treated otherwise than by sumatriptan. In most of these mentioned patient groups, inhalation of 100% oxygen is recommended as the acute therapy of first choice.
Prophylactic drugs are usually given to patients with more than two attacks per day, or when side effects or insufficient effect occurs with the acute treatment (1). Verapamil is the first option. Second-line drugs to be considered are corticosteroids, which may induce a remission of frequent, severe attacks, and lithium carbonate. Ergotamine tartrate orally may be sufficient for patients with night attacks and/or short, rather mild to moderately severe CH periods. Third-line drugs are serotonin inhibitors (methysergide, pizotifen), sodium valproate, or gabapentin.

The long-term prognosis of chronic CH is of sociomedical interest. It is well known that patients with CH are heavy smokers and drinkers (3,6). Attention must be paid to the risk profile for these patients, especially in view of the extraordinary intensity of the pain attacks. A large and regular intake of analgesics must also be avoided. There is a potential for overuse of opioid medications when patients experience increased frequency of episodes, especially in chronic cluster. The clinician should be aware of this fact and should not prescribe opioids as a routine.

Guidelines for controlled trials of drugs against CH have been published (10). Adherence to the classification of the International Headache Society (5) is mandatory, as are such aspects as clearly defined criteria for inclusion and exclusion of patients, efficacy parameters, and outcome measures. The primary efficacy criterion is defined as the proportion of attacks effectively stopped within set time intervals before escape therapy. Refraining from concomitant treatment and clear definitions of eventual escape therapy are important as are proper recordings of side effects. Efficacy may not be apparent until the drug has been used for several weeks. In addition, one must not assume that the prophylactic drug is ineffective until dosages are increased, sometimes beyond standard recommendations.

REFERENCES